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# USSR Report

TRANSPORTATION

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## USSR REPORT TRANSPORTATION

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## MOTOR VEHICLES AND HIGHWAYS

### DEPUTY MINISTER ON MOTOR VEHICLE INDUSTRY PROGRESS

Alma-Ata AVTOMOBIL'NYY TRANSPORT KAZAKHSTANA in Russian No 4, Apr 8 84 pp 30-31

[Article: "The Automobile Industry: Today and Tomorrow": interview with A. B. Butuzov, deputy minister, USSR Ministry of Automobile Industry by Ya. Ye. Karpovskiy, stringer for AVTOMOBIL'NYY TRANSPORT KAZAKHSTANA]

[Text] 1984 marks the 60th anniversary of the Soviet automobile industry. Our country, which had no motor vehicle industry prior to the Great October Revolution, had no motor vehicle industry, is today one of the largest motor vehicle manufacturers in the world. Not only has motor vehicle output increased, but also the technical level. In the future the branches will solve still more crucial problems, based on the requirements of the CPSU Central Committee and Council of Ministers USSR decree, "On Measures for Accelerating Scientific and Technical Progress in the National Economy."

The measures for speeding up scientific and technical progress in industry as planned by the party and the government shall apply to motor vehicle manufacture. The interview which Deputy Minister of Motor Vehicle Industry USSR A. V. Butuzov gave to our stringer Ya. Ye. Karpovskiy, concerns this.

[Question] What successes have been achieved concerning the speedup of scientific and technical progress in the branches in the last few years?

[Answer] "First of all I would have to mention the effective management of tremendous capital investments over the past 15 years, investments which made it possible to put into production 98 basic models during the 10th Five-Year Plan, not to mention modifications of new vehicle technology which satisfy current requirements. Over a half billion rubles--that's the result we obtained during the 10th Five-Year Plan as a result of the introduction of technical innovations. This served as an excellent basis for a more steady effort in putting new vehicle technology into production in the 11th Five-Year Plan. Now, without exception, all the leading associations of the industry are actively working to develop new progressive types of vehicles technology. Of course, this work is now at various stages, from initial planning to production. But the main thing is for everyone to have a clear and accurate program for creating new progressive designs.

[Question] The third, central year of the Five-Year Plan is over. That leaves only 2 years till plan's end. In connection with this, what is the main task of the branch to implement technology?

[Answer] Our main task is to incorporate as soon as possible the full range of the items planned for the 11th Five-Year Plan along with basic technology and the designs which were worked out in the 10th Five-Year Plan. Meanwhile, putting them into production often progresses more slowly than we would like. Not until year's end did the Kremenchug Motor Vehicle Plant begin production of the new saddle tractors and multipurpose chassis. The main thing now is to get seven more new truck models into production before the end of the five-year plan. The 16-ton dumptrucks and 30-ton timber transport tractor-trailers needed by the national economy have priority.

Also delayed was the production of tractor-trailer rigs with triple-axle tractors at the Minsk Motor Vehicle Plant and the Yaroslav Engine Plant. It is the responsibility of both the Yaroslav and Minsk workers to do everything necessary to begin serial production of the new main highway tractor-trailer rigs, outfitted with modern engines, as soon as possible.

A singularly important task looms before the collective of the Belorusskiy Motor Vehicle Plant, and the technical services of BelavtoMAZ to put into production and upgrade the quality of dumptrucks, especially those with larger carrying capacity. The unconditional fulfillment of established production quotas for 180-ton and 110-ton dumptrucks, and the shortest assembly time is the responsibility of the BelavtoMAZ workers. Even though for the last few years unfavourable criticism from consumers has lessened concerning the quality of the 75-ton units, a great deal of improvement still remains. Today, miners are awaiting for more higher quality trucks from the Belorussian vehicle manufacturers.

Design and engineering problems discovered in-operation in the KamAZ series are still being eliminated slowly, and a lag has been allowed in the production of their all-power driven models.

During the 11th Five-Year Plan special attention must be given to the production of new transport-technological agricultural tractor-trailer rigs at the Ural and Kutaisi motor vehicle plants, and a number of specialized transport vehicles. Such vehicles would address the needs of the agro-industrial complex, including Neftekamsk agricultural tractor-trailer rigs, trailers for the transport of liquid fertilizers and uncontainerized fertilizers, refrigerator trucks and also crew shuttle vehicles, needed by oil and gas workers in some regions.

There is a lot to do in the 11th Five-Year Plan with respect to production of diesel buses in Lvov and Likino, as well as small buses in Pavlov.

[Question] You have been talking, Aleksandr Vasil'yevich, about equipment which must be put into production during this five-year period. But what are the problems concerning the continued improvement of design?

[Answer] What is necessary today is not to be satisfied with our achievements, to seek new, improved designs and technology. Already in this five-year plan there is a need at the industry plants to develop designs that must be put into production during the 12th Five-Year Plan. First of all we must note the extremely important work for the national economy done by the ZIL and GAZ collectives in organization of production of new freight models and diesel engines for them. Production of these models will be initiated in 1984-1988, and utilize modern technological and engineering equipment that is produced by the domestic industry and that is being supplied on the basis of cooperative arrangements from fraternal socialist countries.

At practically all the motor vehicle plants, including Minsk, Kremenchug and Ulyanovsk; at the Orsk, Krasnoyarsk and Stavropol trailer plants the modernized, improved versions of the basic models must be worked out during the 11th Five-Year Plan, and put into production during the 12th Five-Year Plan.

In the near future the country must receive the first small-capacity diesel freight trucks. The development of just such a ton-and-a-half diesel truck has been started in the Central Scientific and Research Vehicle and Engine Institute, NAMI.

[Question] Tell us, please, of the future plans for passenger autos.

[Answer] I can say that certification trials have been completed, and preparation for production of the new VAZ, ZAZ, AZLK front-wheel drive cars in proceeding. The technical innovations which have been incorporated into their construction have already been announced in the press. I will say only that the consumer is impatiently awaiting for the new car models and that our task is to put them into production as quickly as possible. But there is still a great deal to do. As is known from press articles, production of the new light truck at the Moscow Motor Vehicle Plant imeni Lenin Komsomol, will involve a general reconstruction of the enterprise. Large-scale operations connected with startup of new car production will also have to be carried out at other plants.

[Question] What can you tell us about the organization of design projects in progress in general, and about models which are to be introduced in the 13th and 14th Five-Year Plans, in particular? Are such problems being raised before design staffs of the association and the leading plants?

[Answer] Yes they are. They were discussed in particular at the enlarged session of the Board of Ministers of Motor Vehicle Industry which was held not long ago. And this is being done so that when the time comes for new vehicles to be put into production, they will be completely ready, structurally as well as technically. At the enlarged session of the board it was further decided not to put off work on future projects and to begin work on the models for the year 2000. This task was placed, in particular, before the design facilities of BelavtoMAZ to work out a future highway trailer-truck with pioneering scientific and technical features.

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## MOTOR VEHICLES AND HIGHWAYS

### ATV DESIGN APPROVAL FACES YEARS OF DELAYS, OBSTACLES

Moscow SOVETSKAYA ROSSIYA in Russian 16 May 84 p 2

[Article by A. Antonov: "Why Is the All-Terrain Vehicle Bugged Down?--The Long, Drawn-Out Story of Introducing a Valuable Technical Innovation"]

[Text] This story began, as usual, with an idea. G. S. Nikitin and his friends A. Z. Filatov and I. A. Yevdokimov arrived at the Novosibirsk Plant imeni V. P. Chkalov as young specialists, and decided to build with their own hands a vehicle that would be capable of covering distances not only on a highway, but also off the road, in other words, an all-terrain vehicle (ATV).

We will skip all the organizational, technical, and other difficulties, which were so numerous that they could have knocked the enthusiastic designers "out of the saddle." We will stress only that the plant's management took the designers' undertaking seriously, in spite of the fact that it went in a direction far from the needs of production, and the management supported them by allocating the necessary materials through a scientific and technical society.

Contrary to the opinion of associates, which, frankly, was not always favorable, after many evenings the KV-1 ATV appeared. KV stands for rolling caterpillar track, and the 1, naturally, represents the first model.

The basis for their idea was the invention of Soviet engineer A. M. Avenarius, an earlier motor vehicle designer. In the 1940s he proposed a design for this type of drive, the caterpillar chain of which was not equipped with linked "ties", but with rotating rollers. The rollers roll over hard surfaces, just as they are supposed to; on damp and loose soil, they hook onto the ground; and skis help the ATV to handle snow and mud. In the difficult post-war years the GAZ-47 AMA appeared, with a ski and roller caterpillar track; it was far from perfect according to today's standards. It is a shame to think this, but it would have been better if this vehicle had never been developed, since after many years, after shaking the dust off the report on its testing and referring primarily to these test results, specialists reached the categorical verdict about a contemporary ATV: "The work that has been done on the design and testing of experimental models of vehicles driven by roller-caterpillar track, has confirmed that industrial utilization of this type of drive is not practical..." For the sake of fairness we should point out that there were



then and there are now people who are convinced of the practical need for a ski-roller-caterpillar drive. Their opinion is not unfounded.

In Eastern and Central Siberia swampland accounts for 20 percent of the land area, and in Western Siberia, over 50 percent; one-third of the swampland cannot easily support vehicles and the terrain is very rough. The snow cover is up to two meters deep. Today there are no snow and swamp vehicles capable of operating under these conditions. But the tests of the "new design" ATV have shown that it is capable of operating here!

In the 1970s working and creative contacts between the enterprise and the Siberian Department of the USSR Academy of Sciences became closer. Academicians M. A. Lavrent'yev and G. I. Marchuk were frequent guests at the plant. At one such meeting workers from the Plant imeni Chkalov showed M. A. Lavrent'yev, the representative of the Siberian Department of the USSR Academy of Sciences, his "self-propelled buggy." He was simply showing it to him without any ulterior motive, as an interesting homemade object. On seeing it, the renowned scientist exclaimed, "That's a very interesting idea, and you know, although I'm not an expert in this field, I think you should really work on this thing properly." Thanks to Lavrent'yev's support, an agreement was signed between the Hydrodynamics Institute and the plant, and the necessary funds were allocated. And a new apparatus appeared in the yard of the Plant imeni Chkalov--the GT-TK (heavy caterpillar roller tractor). We should point out that by this time the original machine had already travelled 21,931 km, which is quite a lot for an ATV. And all the designers were happy. They started work without delay.

Anyone who has seen, even in the movies, an ordinary caterpillar ATV travelling across the snowy tundra, for example, can imagine the machine built by the designers at the Chkalov plant. In appearance it differs from series production caterpillar tractors only in that it has a tent-like cover for the passengers' comfort, and it has a roller system with skis and floats. True, it does not leave as clear a track through snow or swampland. But it is the absence of these tracks, which even someone who is not an expert can see, that is one of the most important advantages of the roller drive. It does not tear into marshy tundra ground and snow, turning it into mush; instead it rolls over it, and if necessary, it slides across on skis.

After the new ATV was built, it was put through rounds of tests, over hundreds of kilometers, across swamps near Nizhnenavatorsk and Samotlor. The Chkalov plant signed an agreement for creative cooperation with the Siberian Department of the Academy of Agricultural Sciences imeni V. I. Lenin, demonstrating the possibility of utilizing these vehicles for haying operations. K. Yankilevich, the director of the "Poymenny" sovkhov, the only one of its kind engaged in fodder production, was delighted with this "newcomer." The testing went well, but problems arose in starting up series production. Perhaps the invention of the Chkalov plant workers appeared ahead of its time? Researchers in Siberia were reported to be having many other problems. But in 1982, I. S. Nayashkov, chairman of the USSR State Committee for Inventions and Discoveries, stated in the press that he "believes it would be expedient to develop an integrated, intersectorial special program outlining all the stages, right up to series production, of the amphibious ATV with ski and roller drive..."

But let's go back to the end of 1977 to finally understand why the ATV "got stuck" in a bureaucratic swamp, in spite of all its merits.

It was then, at a difficult period for the offspring of the Chkalov workers, that Academician A. P. Aleksandrov, president of the USSR Academy of Sciences, came to the aid of the ATV. He was visiting the Siberian workers, and at the end of his visit they showed him a film clip on the testing of the ATV. They showed him a clip in which the ATV repeatedly pulls a series tractor with a caterpillar track out of a bog in which it had become hopelessly stuck. When he saw this, Aleksandrov said practically word for word what Lavrent'yev had said earlier: "This is what we need to do." After he returned to Moscow, the president of the USSR Academy of Sciences suggested that a meeting of the council of the USSR State Committee for Science and Technology be held. The council decided to form a working commission. This was on 13 December 1977, and by 1 February of the following year the commission had to present its findings on the development of work on the ATV. This indicates that there were no doubts about the actual expediency of the work itself. It remained to be decided where these new machines would be made and by whom.

The working commission, led by M. P. Kovalev, deputy chairman of the State Committee for Science and Technology, assigned the task of conducting the examination to the State Motor Vehicle and Motor Scientific Research Institute. The panel of experts included tractor builders and people involved in oil and gas extraction. The experts arrived at the Chkalov plant right in the middle of the bad road season--on 16 April 1978--and they asked to see the ATV in action. The vehicle was in far from perfect condition after a difficult trip through the northern Tyumen region, but it performed beautifully. The Siberians were content, especially since the experts declared that "the work on the ski-roller-caterpillar drive has been carried out at a high technical level." But, to the surprise of the plant designers, the experts refused to sign a formal document with the ATV's creators, claiming that there was not enough time. On 27 April a meeting of the panel was held at the State Motor Vehicle and Motor Scientific Research Institute, which was quite absolute in character. On the basis of data presented by the scientific research institute, a conclusion was reached that we are now familiar with: utilization of this vehicle is not expedient.

The most surprising thing in this story is that almost everyone who signed this statement did not see the Siberian's ATV with their own eyes, and they did not even invite the creators to the meeting. Perhaps this serious document is still objective and scientifically sound? Let's take another look at it. "The roller-caterpillar drive, compared to huge drives with linked caterpillar tracks, has significantly poorer traction, and consequently, less mobility under characteristic conditions of transport equipment in meadows, plowed fields, sand, and snow of medium depth..." "There is marked destruction of soil, which excludes its use on tractors and other agricultural equipment." "The experimental GAZ-47 AMA and GT-TK transports operate poorly in the water and practically cannot be maneuvered in the water." "They are significantly inferior to contemporary wheel drives in terms of resistance movement." And so on...

But the creators of the ATV with the ski-roller-caterpillar drive state emphatically that they did not intend to compete with racing cars, they did not even think of having a contest with a tractor in a ploughed field, and they have absolutely refused to compete with a speedboat. All in all, the expert opinion (we will make note of that) states that their ATV "resembles special snow and swamp vehicles in terms of its ability to overcome sharp inclines and hills when working on steep terrain (such as the "Ratrak-Al'pin type), which are used to pack ski trails." Is it really true that "when travelling over flooded peat bogs, sapropelic and floating bogs, and also during repeated travel along the same track, and on swamps covered with an abundant grassy surface, this ATV has advantages over the GT-T [heavy caterpillar tractor] series transport, and damages less of the swamp surface, and in snow 1.5 and 2.5 meters deep it can overcome inclines of 25 and 20 degrees, respectively?"

It would probably be worthwhile now to turn our attention to the opinion of one of the specialists, V. I. Kopylov, deputy chief of the technical section of the Main Oil and Gas Construction Mechanization Administration. After signing the document, he made the following comment: "I believe it is necessary not to curtail this work, but to continue it, to manufacture several machines, to conduct interdepartmental tests, and draw a conclusion about the expedience of putting this type of machine into production." We must also take note of his postscript, which reads: "Furthermore, the experts' conclusion contains figures and deductions that were not actually confirmed by experiments."

This is very serious. One cannot overlook the fact that at that time the State Motor Vehicle and Motor Scientific Research Institute was making preparations for testing its Ural-5920 snow and swamp vehicle, and the "Gazstroy Mash" [Gas Construction Machinery] Special Design Bureau was finishing work on its "Tyumen" vehicle and was also getting ready to produce DT-LP tractors. Perhaps this interfered with the experts' giving an objective evaluation of the Siberians' work? But we should get rid of such ridiculous thoughts. Still, to eliminate the possibility of chance and any bias in such an important matter, a true, serious, objective experiment was needed, along with comparison tests.

It seems that the USSR State Committee for Science and Technology, reassured by the authority of the specialists at the scientific research institute, still vetoed the ATV prematurely. Recently the USSR State Committee for Inventions and Discoveries issued a patent for the invention of the Chkalov workers, the basis of which was once again the idea of a roller-caterpillar drive. Nikitin and Filatov were in Moscow on a business trip and visited their ministry, showed sketches of the new "everyday" ATV, their patent for the invention, and suggested that they produce a small number of amphibious vehicles at their Novosibirsk plant as consumer goods. The ministry listened to the Siberians attentively and in principle approved the idea. But the inventors try not to talk about this.

Georgiy Semenovitch Nikitin smiled and brushed away a strand of already gray, but still stubborn, hair, "Let's not put a jinx on our success."

The Chkalov workers, understanding the importance of the work, are ready in principle to start up production of a small number of amphibious vehicles. In our opinion, this should be just a small part of a whole set of measures aimed at accelerating the testing, verification, and future introduction into series production of new ATV equipment, which is so vital for Siberia and the Far East.

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## MOTOR VEHICLES AND HIGHWAYS

### MAZ-6422, MAZ-5432 TRUCK TRAIN PRODUCTION BEGINS

Moscow IZVESTIYA in Russian 9 Apr 84 p 1

[Article by M. Shimanskiy, IZVESTIYA correspondent: "Trains On the Highways"]

[Text] The Minsk Motor Vehicle Plant has begun series production of the MAZ-6422 and MAZ-5432 large-capacity truck trains. In creating this new generation of trucks, specialists utilized the latest scientific achievements in this field.

Mikhail Stepanovich Vysotskiy, chief designer at the "Belavtomaz" [Belorussian Motor Vehicle Plant] Production Association, winner of the USSR State Prize, and doctor of technical sciences, tells about the new trucks.

"The MAZ-6422 is a highway vehicle which serves as the basis for a wide range of modifications. The truck trains are designed for long-range and super long-range large-volume shipments. By the end of the current five-year plan the Minsk Motor Vehicle Plant will have moved totally to the production of these new models without interrupting the operation its main conveyor. The new truck trains are already coming off the line. For example, container trucks based on the MAZ-6422 tractor, and semi-trailers with a carrying capacity of 32.5 tons are being used in international and intercity shipping.

"The truck trains were built on the basis of a whole series of new design solutions. For example, electronic elements have been used in the brake and electrical equipment systems. The trucks have engines with larger capacities--280, 320, and 360 horsepower."

Mikhail Stepanovich went on, "Our collective was assigned the task of creating a truck train that would provide maximum performance under harsh climatic conditions. The MAZ-6422 truck trains manufactured for use in the north have been tested successfully.

"A program has also been approved for production of gigantic dump trucks. Included in implementation of this program are 18 national ministries and over 50 scientific organizations, primarily institutes under the BSSR Academy of Sciences. A large amount of scientific research and experimental design work remains to be done."

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## MOTOR VEHICLES AND HIGHWAYS

### BRIEFS

NEW DIESEL TRUCK--Yakutsk, 6 Apr 84--A test for resistance to freezing weather, and reliability under the conditions of complicated mountain routes and a lack of roads was passed by a column of new-model trucks from the Uralsk Motor-Vehicle Plant. A characteristic of this model, which has been designated as "Ural-4322 V," is its air-cooled, diesel engine. Previously in Yakutiya motor vehicles from this plant, equipped with diesel engines from the KamAZ [Kama Motor-Vehicle Plant] have given a good account of themselves. The present model has turned out to be more suitable for the conditions of the Far North. In the tests, after standing out for many hours in the deepest freezes, this engine started without any particular trouble. [By V. Tarutin, special correspondent] [Text] [Moscow PRAVDA in Russian 7 Apr 84 p 3] 2384

BRIDGE BEGUN IN GORKIY--Construction has begun in Gorkiy on a new bridge--the fifth in number--across the Oka. It will constitute part of the section of the Moscow--Gorkiy--Kazan Highway. The length of the new bridge will be one kilometer, while its width will be 30 meters. When the 16-km section of the highway goes into operation, there will be fewer motor vehicles passing through Gorkiy. [By S. Yatsenko] [Text] [Moscow SOVETSKAYA ROSSIYA in Russian 24 Apr 84 p 2] 2384

NEW DIESEL TRAILER TRUCK--The first diesel trailer truck designed for operating in rural localities has come rolling off the assembly-line of the Gorkiy Motor-Vehicle Plant. How is it different from its "fellow-workers"? The new motor vehicle with the trademark "GAZ" has twice as much load-carrying capacity--9 tons--and increased vehicle mobility. Provision has also been made for the possibility of using this truck in combination with harvesting equipment in the fields. In "conjunction" with grain- or silage-harvesting combines, such trucks will be able to move through a field at a speed of 2--3 km per hour. Moreover, these trucks are equipped with tilting devices on three sides of their bodies, which speeds up the unloading operation. The following fact is also noteworthy: the truck's 16-cylinder diesel engine with its air cooling ensures significant fuel economy; moreover, the emission of toxic gases into the atmosphere is reduced to a minimum. In contrast to diesels with liquid cooling, the new diesel is suitable for operation in the most diverse climatic conditions in the country, places where this trailer truck has successfully undergone operational testing. According to the calculations of the plant specialists, use of the new GAZ trucks will allow fuel savings of as much as 400,000 tons a year. [By V. Noskov, correspondent] [Text] [Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 24 Apr 84 p 2] 2384

NEW KRAZ HEAVY-DUTY TRUCK--Kremenchuk, Poltava Oblast, 27 Apr 84--The output of diesel-powered motor vehicles has been increased by the AvtoKRAZ Production Association: the 500,000th heavy-duty truck has come rolling off the main assembly-line here. This is a paneled, all-terrain vehicle with three guiding cross-bars; it is the basic model of a new family of heavy-duty motor vehicles whose serial production has been developed in accordance with the decisions of the 26th CPSU Congress. The new trucks have retained the traditional merits of the KRAZ family--an economical engine, enhanced power reserves, and the capability of overcoming a lack of roads. Furthermore, they are distinguished for their large load-carrying capacity, degree of comfort, and reduced metal consumption. Such is the result of design improvements and the use of engineering innovations in production. Conversion to producing the new models was aided by the country's leading motor-vehicle plants. With their cooperation the assembly-line was modernized, and additional capacities were introduced. Preparations have been completed for the serial production of 16-ton, high-speed, all-terrain dump trucks, trailer-type dump trucks, and timber-hauling trailer trucks. According to the calculations of the specialists, by employing such equipment we can increase labor productivity in transport operations by a factor of 1.5 and free up thousands of drivers. [By A. Palant, RATAU correspondent] [Excerpts] [Kiev PRAVDA UKRAINY in Russian 28 Apr 84 p 1/ 2384]

NEW MAZ TRUCK--At the Minsk Motor-Vehicle Plant, in accordance with the plan for modernization, Machine-Assembly Wing No 1 is being erected; it is intended for the assembly of motor vehicles belonging to the new MAZ-6422 family. This model will be basic during the 12th Five-Year Plan. It is planned to manufacture the rear cross-bar on the automated line, which, in turn, consists of four assembly lines. The four threads are connected by an integrated transport system. The workers will not have to assemble, trim, or adjust the parts--they will be transferred from one line to another by manipulators. Special automatic units will perform many operations which up to now have been done manually by the assemblers. Provisions have likewise been made to feed the finished assembly units to the assembly-line, where the final assembly will take place. By means of utilizing up-to-date equipment, the labor-intensive-ness of assembling motor vehicles will be considerably reduced. [By L. Maslyukova] [Text] [Minsk SOVETSKAYA BELORUSSIYA in Russian 6 Apr 84 p 2/ 2384]

BRIDGE ACROSS INGODA RIVER--Only half a year was required by the builders of the Olenguyusk Lespromkhoz of the Chitales Association to erect a 250-meter highway bridge and connect the banks of the Ingoda River at the Novaya Station. This event has been evaluated by construction chief V. Lidoshan as follows: "The highway passage across this rapid mountain river has reliably linked our lumbering sub-divisions to the transshipment point by means of a year-round transport artery. Other big winners have been the agricultural workers of the Chita region. Now they do not need to make round-about trips of many kilometers in order to secure equipment, fertilizers, and agricultural items. By means of curtailing road expenditures the cost of the bridge will pay for itself within a year." [Text] [Moscow SOVETSKAYA ROSSIYA in Russian 16 May 84 p 2/ 2384]

NEW MOTORCYCLES AND MINIBUSES--Less than three were required for the machine-builders of Izhevsk to surpass the regular million mark: in May 1981 they marked the production of the 6 millionth motorcycle, and in January 1984 they assembled IZh No 7 million. It was the latest-model motorcycle "IZh-Planeta--4" (See ZA RULEM, 1984, No 1). It is planned to inaugurate mass production of such vehicles during the second half of the year. In accordance with tradition a competition commenced within the association for the right to take part in the assembly of the Jubilee IZh. Its winners were fitter-assembler V. Ryabov, puncher L. Osotova, electric welder Ye. Mishchikhin, and other workers. [Text] [Moscow ZA RULEM in Russian No 5, May 84 p 15] The basic production line of the RAF Minibus Plant imeni 26th CPSU Congress was moved in 1976 from Riga to new and up-to-date buildings in Yelgava. There they inaugurated the serial production of the RAF--2203 vehicles. The modern-day equipment of the new workshops allowed us to almost double production. At the end of February the 100,000th minibus rolled off the assembly-line in Yelgava. This plant makes more than 60 such vehicles daily. And in the old area in Riga they manufacture various modifications of the minibuses in small batches, and they assemble test models of improved RAF's. One of them, which bears the index RAF--22038, is supposed to replace the present basic model within the next few years. The RAF--22038 has a new front-wheel suspension, a different configuration for the driver's seat and the passenger salon, an improved braking system, ventilation, and heating. [Text] [Moscow ZA RULEM in Russian No 5, May 84 p 15] [COPYRIGHT: "Za rulem", 1984/ 2384

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## MARITIME AND RIVER FLEETS

### USSR CONTINUES ACQUISITION OF GDR-BUILT SHIPS

Moscow PRAVDA in Russian 2 Mar 84 p 4

[Article by Yu. Kaz'min, PRAVDA special correspondent, Berlin: "For the Expanses of the Sea"]

[Text] The Varnoverft shipbuilders recently delivered the multipurpose motor ship Astrakhan' to Soviet sailors. This is the lead vessel in a series of high speed motor ships with a horizontal and vertical loading system of the "Lo-Ro" type. Loaded in the West German port of Bremen with steel pipes for gas pipelines, it left for our native shores.

The motor ship Astrakhan' is intended for the shipment of general cargoes and cargoes in bulk without packaging, large universal containers, cars and trailers, which may be shipped quickly and easily, by means of its after ramp, in its spacious holds. The cranes and booms of the motor ship permit working with cargo weighing from 12 1/2 to 125 tons. Such extensive equipment in the vessel permits loading and unloading on shores lacking equipment.

The fruitful teamwork of the Varnoverft shipbuilders and the Soviet specialists of Sudimport permitted the achievement of record times in the construction and launching into operation of the new lead motor ship. The building of its keel was begun on 4 May of last year, and on 23 August it was already launched on the water and then tested. This is the 53rd vessel built in 1983 in shipyards of the GDR for the Soviet Union. It should be noted that shipbuilding in the GDR is being developed on a firm foundation of cooperation with CEMA countries. Power plants, navigational equipment, various instruments and metals are being sent from the Soviet Union to shipyards in the GDR.

Ch. I. Greven, director of the shipbuilding combine, tells about the collaboration with Soviet sailors and specialists:

"The shipyards of the GDR are expanding their production program in connection with Soviet orders. For example, last year at the Volkswerft" in Stralsunde, 30 large fishing vessels were built for the USSR, among which were 6 super-trawlers of the Atlantic-333 type. This year, 33 vessels will be built."

In mid-January, the river passenger motor ship Leonid Sobolev was launched on the water at the Beuzenburg shipyard.

"Our enterprise, " says its director, G. Drause, "delivers on the average each year to our Soviet customers three comfortable tourist passenger vessels and seven container transport vessels of the 'river-ocean' type, which have recently achieved wide popularity for both internal water arteries and the ocean."

All in all, 56 different vessels are being built in GDR shipyards this year for delivery to our shipping representatives. Aside from this, a significant amount of work will be done in connection with maintenance of motor ships built earlier and the production of spare parts. In the final year of the five-year plan, the shipbuilders of the republic are pledged to deliver 63 vessels to Soviet sailors and river transport workers.

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## MARITIME AND RIVER FLEETS

### MARITIME FLEET MINISTRY NOTES MANAGEMENT, LABOR PROBLEMS

Moscow VODNYI TRANSPORT in Russian 26 Apr 84 pp 1-2

[Report by V. V. Beletskiy, deputy minister of Maritime Fleet, and statements of participants at a joint session of the board of the Ministry of Maritime Fleet and the presidium of the central committee of the trade union of workers of the maritime and river fleet; date and place not specified]

[Excerpts] As has already been reported, urgent tasks in improving work with personnel of the fleet and the branch's shore installations were examined at a joint session of the board of the Ministry of the Maritime Fleet and the presidium of the central committee of the trade union of workers of the maritime and river fleet.

The report of Deputy Minister V. V. Beletskiy and statements of participants in the session are published below in condensed form.

Successes in the accomplishment of plans for economic and social development and socialist obligations did not come automatically; they became possible thanks to the purposeful work of leaders of the economy and the party, trade union, and Komsomol activists in mobilizing the workers for highly productive labor. In considerable measure, this is also the result of the correct implementation of the personnel policy defined by the 26th Party Congress and subsequent plenums of the CPSU Central Committee. Now the branch is virtually completely supplied with qualified specialists. The system of maritime education which has been tested by decades led Soviet maritime transport to leading positions as regards the level of training of engineering and technical personnel.

An important role was played by the decisions of the board concerning work with personnel in the Far Eastern, Azov, and Baltic Shipping Lines which formed the basis of the activity of all collectives in improving the selection, placement, and education of personnel and improvement in the use of the tremendous labor potential which the branch possesses. And this potential is significant. The average registered number of workers in 1983 was almost 412,000 people, 3,000 more in comparison with the preceding year. The increase in the number of workers occurred due to the development of port facilities, an increase in the volume of loading and unloading operations, and the development of industrial enterprises and construction.

A special place in the matter of the selection, placement, and education of personnel is occupied by work with management personnel.

During the 11th Five-Year Plan, much was done in the branch to strengthen the supervisory elements of the shipping lines, ports, ship-repair yards, and other enterprises, institutions, and organizations with new people who more completely meet those lofty requirements which the party imposes on this category of personnel. During this time 32 new supervisors were appointed (chiefs and their deputies) in the shipping lines, 31--in big seaports, and 19--at leading ship-repair yards. The quality composition of the branch's management personnel improved somewhat in the central apparatus as well as in the collectives of the peripheral enterprises and organizations where the number of specialists with a higher education among the supervisory personnel increased by 2.1 percent; the number of captains having a higher education increased by 7.3 percent. The quality level of scientific and pedagogical personnel improved; today 101 doctors and 1,149 candidates of sciences are working in the branch.

An analysis shows that those in the key posts are generally highly qualified specialists of maritime transport and politically mature leaders who are capable of accomplishing with initiative and skill tasks of raising the effectiveness of the branch's work on the basis of scientific and technical progress.

One of the determining factors which has a positive influence on an improvement in the selection, placement, training, and education of management personnel is the formation of an effective personnel reserve and purposeful work with it. Attention to this work has intensified significantly in recent years. Its foundations are laid in the branch's enterprises; then it is continued in the main administrations, administrations, independent departments, and associations. The status of this work is examined at boards and at conferences with the deputy minister and in the Main Personnel Administration with the participation of the chiefs of the shipping lines, secretaries of party committees, chairmen of basin committees of the trade union of workers of the maritime and river fleet [baskomflot], the deputy chiefs of shipping lines for personnel, and the supervisors of higher educational institutions. The work is not limited to the drawing up and examination of lists of candidates for the personnel reserve. The main thing is that a check is made of how the training of those registered in the reserve is being accomplished, what the certification shows, and how the personnel reserve is used when shifting specialists.

Work with the personnel reserve is providing favorable results. More than 75 percent of the supervisory personnel on the ministry's list who were assigned in 1983 were taken from the reserve which was formed. It can be said that favorable shifts were noted in work with the reserve in the shipping lines and in enterprises and organizations.

They were noted and they provide certain results but, unfortunately, not everywhere and not to the degree required by the corresponding decrees of the CPSU Central Committee. There are still many defects and much formalism in work with the reserve and, at times, even indifference and a reluctance to trouble oneself with a search for gifted, talented people and the breeding and deep study of their professional and political qualities. As a result of this, there still



are many cases in which the necessity of replacing a supervisor or other key person or transferring supervisory personnel creates a mass of problems which, despite the presence of an approved reserve, are connected with the search for worthy candidates.

Individual managers of shipping lines do not delve personally into the selection of people for the reserve, are afraid to advance young, energetic specialists to leading roles, and do not train worthy replacements. Frequently, when they have four or five deputies primary supervisors are unable to recommend candidates to replace themselves. It is necessary to invite personnel from other subdivisions and even departments. Can such a phenomenon really be recognized as normal? This shows that the given supervisor worked "for himself," did not train replacements, and surrounded himself with unpromising, poorly capable, "convenient" associates. Unfortunately, there are many such examples. It is believed that it will be correct to pose the question as follows: The primary official duty of the supervisor is the selection and upbringing of personnel, including the training of worthy replacements for himself. Supervisors should be evaluated according to this criterion.

We should always remember the instruction of V. I. Lenin who criticized uncompromisingly supervisors who complain of the lack of people for advancement to responsible work sectors. "The one who does not notice new, growing forces does not see the forest for the trees," wrote Vladimir Il'ich. "It is better for such an organizer to retire and clear a place for young forces whose energy more than makes up for the accustomed and learned routine."

Since the time when this was said, tremendous qualitative changes have occurred in our branch and it has moved far forward. Now we have no shortage of trained, educated, and energetic specialists with initiative. In the shipping lines they are noticed, trained, and boldly advanced to responsible sectors. Here, the important Lenin requirement of combining young and experienced personnel is observed. However, despite this, once in a while we must encounter negative facts. An example of an irresponsible attitude toward questions of work with management personnel is the extraordinary occurrence at the Loksa ship-repair yard of the Estonian Maritime Shipping Line. Confidence was denied the supervisors for mismanagement, incompetence, and inattention to people and the yard's affairs. Having examined the statement of the ITR [technical-engineer personnel], including all shop chiefs, the party buro decreed: "To request the management of the EMP [Estonian Shipping Line] to examine the question of the fitness for service of the yard director, V. A. Kirichenko, the chief engineer, V. P. Kisil', and the deputy director for general problems, Yu. V. Badmayev." The attentive examination of the situation which had been created on the spot confirmed that the supervisors of the enterprise actually lost the confidence of their subordinates and the right to occupy their posts. And this evidently occurred because the managers of the EMP, Comrades Kask, Drobovich, Sergiyenko, and Rokhtlaan, are not sufficiently occupied with these questions personally and reduced demandingness toward themselves and those personnel who are directly responsible for the selection, study, and correct placement of personnel. The case at the EMP is extraordinary. But, you see, serious shortcomings in work with supervisory personnel and with their reserve are found in the Kamchatka, Caspian, and Northern Shipping Lines, SVUMF [Northeastern Administration of the Maritime Fleet], the Main Registry Administration, and a number of others. Life

urgently demands a change in attitude toward this work in accordance with the requirements contained in the documents of party congresses and plenums of the CPSU Central Committee and, most important, the creation of necessary conditions for its successful conduct.

In the ministry, special attention is being devoted to cadres of captains and first mates.

It is first of all seamen on foreign voyages and their supervisors who are rendered the highest confidence: along with ensuring the most important tasks in the shipment of cargoes on international voyages, to represent our motherland abroad in a worthy manner, show the achievements of a socialist society and the Soviet way of life, and propagandize actively the essence of our foreign and domestic policy. The role and responsibility of captains and first mates grew especially under the conditions of the international situation which became more difficult under the fire of the ever increasing influence of imperialism's ideological and psychological actions. The majority of the captains and their mates are justifying the credit of confidence given to them by the party and the state.

The quality composition of captains and command personnel is constantly improving as a whole: 54.9 percent of the command personnel have a higher education (1982--50.46), and among commanders 49.1 percent are communists (1982--48). The absolute majority of senior command personnel are making a great contribution to the successful accomplishment of the tasks facing maritime transport. First of all, they are the leaders of crews which initiated the all-union socialist competition.

Great indoctrinational significance is had by the procedure of approving captains for boards, their stay in Moscow, and meetings with leading specialists of the branch and the leadership of the ministry.

Much is being done for the professional training of command personnel: an increase in their qualifications and certification are conducted in good time, and a favorable role is played by a regular check of knowledge. Attention to and monitoring the work of captains, young as well as experienced, are improving noticeably and ways to solve their housing and everyday problems are being found in the majority of shipping lines.

At the same time, in evaluating critically the work with command personnel and the role and place in it for captains and their first mates, it must be recognized that the practice which has developed does not completely meet those requirements which are imposed on supervisory personnel by the party's Central Committee. Unfortunately, there still are many shortcomings and omissions in this matter and, at times, serious blunders and errors. Dozens of leaders of ships' collectives are called to party and disciplinary account for serious delinquencies which often are connected with an unconscientious attitude toward the assigned matter and indiscipline. Why does this occur? Why do such cases become possible as, for example, in the BMP [Baltic Maritime Shipping Line] where the certification commission of the shipping line recognizes the captain of the motorship "Boris Zhemchuzhin," Comrade Antipin, as completely suitable for the post being occupied, and exactly two months later the management of the shipping

line (actually the organizer and leader of the certification commission) relieves him of his captain's duties for not providing the necessary level of leadership for the crew? The same question can also be asked of the supervisors of the Black Sea, Novorossiysk, Sakhalin, and other shipping lines.

In speaking of a system for working with personnel and its improvement and perfection, we often overlook individual personalities and overlook the main thing--the individual study of people, including the supervisors, behind general statistical data, behind figures, and behind the situation as a whole. And depending on their ability, energy, initiative, and persistence is the successful accomplishment of great and important tasks facing maritime transport, and it is namely on them that the organization of work on realizing the tasks assigned to the party and the people by the CPSU Central Committee in raising the level of organization, discipline, and order in production depends.

"For us, the question of organization and order is the key and basic question," noted the General Secretary of the CPSU Central Committee, Comrade K. U. Chernenko, at the special February plenum of the Central Committee. "There cannot be two opinions on this score. Any loosening or irresponsibility become not only material costs for society. They cause serious social and moral loss."

The party's requirements have found broad support and approval in the ministry, in the shipping lines, and in the labor collectives of the branch and much has also been done in the organizational plane and in practical activity to strengthen labor discipline and raise demandingness and personal responsibility for the assigned matter.

But nevertheless, in evaluating the state of labor discipline in the branch it should be acknowledged that thus far the decisive improvement of discipline as required by the party has not occurred.

As formerly, the number of violations of discipline in the collectives of the shore enterprises connected with drunkenness, embezzlement of or damage to the cargo being processed, and violations of public order is great. The board often devoted serious attention to these questions and made strictly responsible the supervisors of shipping lines and ports.

The main reason for the existence of these and other shortcomings is the slow restructuring of the work style and methods of the administrative managers, personnel services, and party and trade union organizations in accordance with the party's requirements.

Lively individual daily work of a broad range of persons and organizations is often replaced by general words and slogans and the elaboration of an unjustified number of measures, resolutions, and decisions. It often begins and ends with appeals and references to the requirements of the decrees of the CPSU Central Committee and the orders of the ministry. But on a check it turns out that many who have been entrusted with work on realizing the guidance documents of the ministry and shipping lines do not know their content or have no idea on how they should be implemented in practice. The mass of the measures being worked out in the shipping lines have a general nature, oblige no one to anything specific, and remain on paper.

A broad range of various subdivisions and officials is involved in work on strengthening discipline; however, their activity is not being coordinated, is not being analyzed, and they are not being held responsible for the state of affairs on the ships.

In some ships' crews an atmosphere of intolerance toward violators has not been created, indifference and complacency reign, a principled evaluation of negative phenomena is absent, and precautionary, preventive work is poorly organized. There is not the proper demandingness toward command personnel in the fleet. Captains, first mates, and the navigation-safety and ship's-facilities services do not reach each young commander and do not work with him daily, persistently, and purposefully. Work on combating drunkenness, the accident rate, and violations of rules for accident prevention and work safety is poorly organized.

Under contemporary conditions, the party teaches, it is impossible to raise the economy to a qualitatively new level without creating the ideological and social prerequisites for this. In recent years ideological and political-indoctrinational work in maritime transport has become noticeably more active and more purposeful and profound in content. The June (1983) plenum of the CPSU Central Committee gave new impetus to the further improvement of this work.

How is this expressed? First, the scientific approach was raised and attention to the organization of ideological work was intensified. Long-range integrated planning of ideological work directed toward the coordination of the efforts of administrative, party, and social organizations in the interests of ensuring the unity of ideological-political, labor, and moral indoctrination of the branch's personnel has been put firmly into practice in almost all shipping lines.

Second, the direct participation of supervisors and command personnel in ideological work is becoming customary, which is furthered to no small degree by the regular listening to reports on this question which are given by chiefs of shipping lines at sessions of the board and the presidium of the trade union central committee.

Third, a system for training and instructing the ideological activists has been formed and presented itself in a good light.

On maritime transport there are all grounds and preconditions for the conduct of effective ideological work. A high saturation with specialists, great attention to general-educational training (in the fleet, now there are only five percent of those working who do not have a secondary education), stable labor collectives --all this provides grounds to approach an evaluation of the results of ideological measures which have been conducted with great demandingness.

Under contemporary conditions, special significance is acquired by the nature of the contingent which is arriving for training in the maritime educational institutions. Important significance is had by the establishment of firm ties with the schools and the professional orientation of the pupils in the secondary schools on the one hand and the strengthening of ties and cooperation with maritime transport enterprises on the other. In connection with this, evening and correspondence training and the raising of the qualifications of those who have completed secondary maritime schools should be expanded.



If all the professorial-instructor personnel, officers and employees, cadets, and party, Komsomol, and trade union organizations of the school, fleet, and shore are involved in recruitment for the school, in this way all means, forms, and methods of mass agitation work will be put into action and it will be conducted in a specific manner; then, there is no doubt, the maritime transport educational institutions will be able to improve the quality composition of commanders from year to year and, through this, will achieve the enrollment, in the schools, of the best representatives of Soviet youth who have consciously devoted themselves to a profession which is difficult and interesting and greatly needed by the country.

One of the most important and key tasks in work with maritime transport personnel is a further rise in the utilization effectiveness of labor resources and the creation of a sufficient contingent of highly qualified workers--the branch's main productive force.

The urgent necessity to expand the training of qualified workers and, first of all in the system for vocational and technical education, was stated with sufficient convincingness in the decree of the CPSU Central Committee on reforming the general-educational and professional school.

It should be said that much has been done in the branch in this direction. The material and technical base of maritime schools, PTU's [vocational and technical schools], secondary maritime schools, and worker training centers which accomplish the training of workers directly in production is developing and being improved. In the Novorossiysk, Latvian, and Baltic Shipping Lines the practice of training in maritime schools and the efficient use, in production, of workers who have been trained in the profession of docker-machine operator or ship-repair worker along with a maritime specialty has shown itself in a good light.

All this shows that the system of training and providing the branch's enterprises and organizations with workers is developing in the right direction. However, in evaluating its level and rate of development objectively and on a principled basis, it should be acknowledged that the system which has developed is far from perfection.

We cannot be satisfied by the still insignificant training of qualified workers in the vocational and technical schools and maritime schools. The annual requirement of the yards for workers is satisfied by only 15 percent through the indicated sources of supply, and of the ports--by 12 percent. Nor can concern fail to be caused by the fact that individual non-category ports which are located in big cities are virtually unoccupied with the professional orientation of the local youth and pupils and, as formerly, are oriented on bringing in workers from other regions of the country.

One of the reasons for the situation which has been created in the training and provision of enterprises with qualified workers and the slow increase in pupil places in the vocational and technical schools and maritime schools is the systematic unaccomplishment of plans for the construction of new and the reconstruction of operating educational institutions in the vocational and technical education system. Only 57 percent of the annual limit on the construction of facilities for vocational and technical education was used for the branch as a

whole in 1983. It must be stated that some chiefs of shipping lines and their deputies for capital construction and personnel are not displaying proper persistence, purposefulness, and initiative in the erection of facilities for vocational and technical education.

Under the conditions for raising the efficiency and quality of work of the shore enterprises and their contribution to the development of the branch's administrative activity, the status of training and providing the ship-repair yards with worker personnel deserves the most fixed attention on the part of the shipping lines' personnel machinery. The urgent necessity to intensify attention to these questions is caused by a shortage of ships' hull workers, pipe fitters, lathe operators, and workers of other limiting professions at a number of yards of the Black Sea, Far Eastern, Novorossiysk, and other shipping lines which, in turn, inhibits the realization of the technical capabilities of the yards to reduce the times for the repair of ships.

In the materials of the 26th Party Congress which are devoted to the main directions for the economic and social development of the USSR for the 11th Five-Year Plan and the period out to 1990, it was stressed that improvement of the mechanism for administrative control urgently requires a profound change in the content, methods, and style of activity and the restructuring of the psychology of management personnel itself. An analysis and evaluation of work with personnel in the branch and the presence of serious shortcomings and omissions in this activity completely confirm these conclusions.

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## MARITIME AND RIVER FLEETS

### RIVER FLEET OFFICIAL ON VOLGA SHIP SERVICING IMPROVEMENTS

Moscow VODNYI TRANSPORT in Russian 17 Apr 84 p 3

[Article by V. Chinguzov: "With Concern for the Inhabitants of the Volga Region"]

[Text] The Volga is an important water transport artery and the most animated one in the country. Every day, hundreds of large and small vessels with large loads of cargo leave their wake in its reaches. At a time of intense navigation activity, this whole huge fleet, especially that concerned with direct shipments, requires precise, uninterrupted and thorough service from the coastal management. First deputy chief of the Volga shipping association, V. N. Troyegubov, in a conversation with our correspondent, tells about how this work on the river will be arranged under present conditions of navigation and about what still remains to be done.

The shipping collective has taken on increased obligations. In particular, it was resolved to transport this year 500,000 tons of cargo with a freight turnover of 500 million ton-kilometers over and above the plan. This is a large task. The people of the Volga will be able to manage it by means of the high level of work on the part of all links in the transport conveyer, including the well organized complex of the transit fleet service.

[Question] What is hindering the development of the complex service?

[Answer] To resolve the problems that are arising, it is imperative, first of all, to have a reliable and highly mobile material base. Unfortunately, in many ports there are insufficient modern technical means for servicing the fleet. Thus, there is insufficient road traction, which can accomplish the work of moving accessories of modular ships of the "Volgo-Don" type. Replacement of the RBT type motor ships by R-103 project road tugs is proceeding slowly. Shipping of floating warehouses [plavmagazin] has ceased. We receive extremely few travelling cutters, essential for control and other services, as well as OS type vessels. There are not enough floating technical assistance stations, cleaning mechanisms, grabs and other technology.

[Question] All these causes relate, so to speak, to the external order. Are there also, perhaps, shortcomings and negligence within the service organization, engendered by the shipping workers themselves?

[Answer] Let us be self-critical. The deficiencies in the service of the transit fleet which have arisen through the fault of the KOF specialists and port workers themselves are many. In the port of Astrakhan we noted a wasteful idleness in vessels of the combined river and ocean going type. The reason? There was a lack of nautical installation personnel and checks on the oxygen gauge apparatus were not organized. Workers in the navigational supply warehouses at the ports of Kuibyshev, Volgograd and several others often prefer to service local crews, forgetting about the needs of the transportation transit fleet. There are complaints from the navigation personnel about the work on travelling cutters and floating warehouses, as well as about refusals from the BPU and communications centers on maintenance matters. Progressive maintenance methods for refrigerators, washing machines, electric stoves for galleys and vacuum cleaners are introduced slowly. Specialists in communications and electro-radio-navigation have still not regulated rapid repairs for televisions, radios, tape records and record players. All this is further aggravated by the fact that some transit vessel captains and mechanics put in claims for service at inopportune times, that is at the last moment.

[Question] For a long time, the workers at the port of Cheboksar in past navigation could not arrange regular delivery of newspapers to the vessel collectives that pass through the hydraulic development locks. There are complaints about delays in correspondence at other points in the basin as well.

[Answer] All these and other shortcomings are the fruit of poor organization in local complex service. As a rule, they appear where there is no control by port managers over this important work and where complex service is considered a secondary matter.

[Question] Are there good examples or samples of the activity of KOF?

[Answer] Yes, there are such examples. The control apparatus of the port of Togliatti has accumulated positive experience in servicing and processing large-cargo vessels. Within the boundaries of their rayon, the local controllers and dockers precisely and quite fully service this group of Volga fleet vessels. They process a quarter of the tonnage they secure without the participation of the vessels' crews, utilizing two diesel-electric vessels of the "Shlyuzovoi" type and combining the jobs of road skippers.

In the port of Gorki, OS motor ship work has been arranged according to the brigade method. In Kuibyshev, Gorki and Volgograd, salary payments to crews are made directly on the floating warehouses. This saves the navigation personnel valuable working hours.

[Question] In these and several other good examples, there is evident potential for an improvement in the activity of KOF. How will it, in fact, be improved in current navigation?



[Answer] A number of important and sensible suggestions are to be implemented in the ports and other shipping subdivisions. All these may be reduced to one: a constant increase in continuous servicing of the fleet, to reach a number of 28,500 individual vessels serviced in transit by 1985. A savings in fleet expenditures on service operations of up to 5 million tonnage-days, against the operational norms, will be possible. That is our strategic goal.

In view of the fact that more than half of the planned freight turnover on transport of dry cargo in shipping is accomplished by large-cargo vessels and motor ships of the "Volgo-Don" type, the closest attention is paid to the work of this fleet. This fleet will be serviced first everywhere. About 30 "Clark" type machines, 6 bulldozers and 15 special grabs are being introduced for cleaning transit vessels. Floating technical stations are operating today in seven ports of the basin.

Measures are being taken, too, for further improvement of mercantile servicing of personnel and navigation. Within the shipping limits on the river, in order to serve the river transport workers, there are 10 floating stores, as well as 37 coastal and landing stage ones, in 10 of which work is organized on a 24 hours basis. The sale of pre-packaged goods is accomplished by means of prior orders. All this occurs non-stop, in transit. Sales of goods to the navigation personnel are projected at 120,000 rubles more than last year.

Aside from this, a scheme of mail delivery has been worked out jointly with [baskomflot] and the shipping party committee for the transport fleet. An exchange of gas balloons has been organized in Gorki and Volgo-grad. There will be more precise servicing of the fleet by communications and electro-radio-navigation specialists.

We all understand that there must be a reliable servicing complex in the Volga fleet.

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## MARITIME AND RIVER FLEETS

### FURTHER RIVER FLEET DEVELOPMENT TIED TO PORT IMPROVEMENTS

Moscow RECHNOY TRANSPORT in Russian No 4, Apr 84 p 28

[Article by V. Matalin and N. Kudachkin (TsNIIIEVT [Central Scientific-Research Institute on the Economics and Operation of Water Transport]): "A Comprehensive Program of Development Has Been Worked Out for River Transport"]

[Text] The cargo turnover of river transport amounts to approximately 6 percent of the country's domestic cargo turnover, but in a number of extremely important economic regions this figure is considerably higher.

In order to proportionally develop all links of river transport and improve the quality of its work, we must solve a series of problems. One of them is elimination of the discrepancy between the development of the transport fleet and the shoreline facilities, i.e., the ports and general-purpose wharves and the clientele, as well as the technical level of the ship-repair and shipbuilding enterprises. During the years of the 10th Five-Year Plan the volume of goods hauled by river transport increased by 18.6 percent, the total tonnage of the fleet--by 17 percent, while the length of the wharf loading and unloading area increased by only 2.5 percent.

Another problem is the development on the waterways of wharves under the administration of the ministries and departments; there are more than 1200 such wharves within the RSFSR. They handle 35--40 percent of all cargoes, but their machine-worker ratio and the productivity of their cargo-handling operations is only one-half or one-third that of the ports under the administration of the Ministry of the River Fleet.

The potentials for transferring cargo flows from rail transport to river transport are far from being fully implemented. At the present time, out of 16 million tons of Kuznetsk coal being delivered to the Volga-Vyatka region and other central regions, only 6.2 million tons have been transferred to water transport. Out of 10 million tons of grain coming into the central and northwestern regions, the grain-elevators provide a total of merely 200,000 tons of transshipment to water transport.

It is necessary to solve the problem of shipping goods to enterprises located along the water routes in the annually required amounts.

The basic directions of scientific and technical progress and the development of a material and technical base for river transport have been worked out.

Provisions have been made to increase the power and the cargo-hauling capacity of ships and barge-trains in order to develop more powerful cargo hauls in all basins, to introduce essentially new engineering solutions in ships' designs, to add heavy-duty river ice-breakers to the fleet, and to create specialized vessels. It is planned to add to the passenger fleet comfortable tourist and excursion ships of new design, catamarans [twin-hulled craft], ships "on underwater wings" [hydrofoils], and others "on air cushions" [hovercraft].

In the ports the intention is to increase the total length of the mechanized loading and unloading docks by almost double. There will be an increase in the number of specialized, highly productive complexes, fitted out with conveyor units for handling goods being transshipped. Provision was already made in the 11th Five-Year Plan to build new capital, mechanized wharves with a length of approximately 5 km in 14 ports.

There will be qualitative changes in the network of waterways. It is planned to modernize waterways and engage in dredging in the rivers, basically of the eastern regions. By 1985 most of the smaller rivers will have been developed, with the organization on them of steady shipping in the oil-and-gas regions of the Ob-Irtysh Basin.

The program outlines the specialization of industrial enterprises, the organization of base-type, initial-processing shops and plants for repairing the large-series transport fleet, and the concentration of serial shipbuilding. Work will be continued on creating an automated system of controlling river transport.

Provisions have been made to further raise the standards of living, the working and everyday conditions of the river people as a result of raising the wages, developing trade, and improving the deliveries to the river-transport workers of foodstuffs and consumer goods, housing and community-type construction, the development of private, auxiliary farms, education and health care, as well as by means of a system of measures for labor safety and environmental protection.

Capital investments will be aimed basically at supplementing the active portion of the fixed capital assets, primarily the fleet. It is intended to spend about 63 percent of the total amount of capital investments for this purpose.

In order to eliminate the disproportions which have taken shape between the cargo-hauling capacity of the fleet and the through-put capacity of the ports, capital investments in shore-line construction is scheduled to increase from 28 percent to 37 percent.

It is intended to obtain a specific national-economic effect from increasing the cargo hauls along the smaller rivers, in vessels of combined navigation, during the extended period of navigation, from hauls in containers, and from transferring cargoes from rail to river transport.

The national economic requirements of the Siberian and Far Northern regions with respect to cargo hauls are growing at a much more rapid rate than are the potentials of the eastern steamship companies.

In order to eliminate the above-mentioned problems, a long-term program has been worked out which provides for a comprehensive approach to solving the questions of the proportional and inter-related development of a material-and-technical base for this sector (the fleet, routes, ports, and industry), of the even development of the regions and spheres of river transport activity (the eastern and north-eastern regions of the country, along with further development of the small rivers) for the purpose of satisfying to the maximum extent the needs of the national economy and the population for all types of hauls and for improving the quality of transport work. Taking part in working this out were the sectorial and planning-design organizations of the Ministry of the River Fleet. The functions of the chief organization were assigned to the TsNIIIEVT [Central Scientific-Research Institute on the Economics and Operation of Water Transport]. The program has been examined by a specially created workers' commission of the Ministry of the River Fleet.

The program elucidates the problems of improving the inter-action between river transport and the national economy, the basic directions of scientific and technical progress in this sector, proposals with regard to improving the organization of the hauling process and river-transport administration, the trends of the enterprises' social development, measures to provide river transport with material resources and to carry out the necessary amount of construction work; it also specifies the principal technical-and-economic indicators of development.

Taking into consideration the requirements of the country's national economy, the basic directions in the development of cargo hauls by river transport for the future have provided for a higher growth rate for cargo flows in the eastern basins, an increase in the volume of cargo hauls in combined rail-water transport, ensuring the shipment of cargoes to regions of the Far North, the development of hauls (including foreign-trade hauls as well) in vessels of combined, "river--sea" navigation, increase in the volume of cargo hauls for agriculture and agricultural products, as well as cargo hauls along the smaller rivers.

There will a development of hauls of petroleum products by river transport to TETs's and GRES's located along the rivers, hard coal (from the Donetsk and Kuznetsk Basins), timber cargoes in vessels (particularly in the Volga-Kama Basin, the White Sea-Onega, and Yenisey Steamship Companies), iron-ore raw materials from the Kola mining and ore-dressing combines to Cherepovets, Kola apatite concentrate for the production of fertilizers, with a transshipment via the port of Medvezh'yegorsk, as well as mineral fertilizers, grain products, and ferrous metals.

The measures outlined by this program should ensure the outstripping growth rate of hauls on the country's rivers, as compared with rail, maritime, petroleum pipeline, or motor-vehicle transport.

The long-term, comprehensive program for the development of river transport can be regarded as a basic variant, which, as the derived data are refined in further studies, will be appropriately improved.

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## MARITIME AND RIVER FLEETS

### PROFILE OF NEW BULK CARRIER 'KHARITON GREKU'

Moscow MORSKOY FLOT in Russian No 4, Apr 84 pp 41-43

[Article by S. Semenov: "The Bulk Carrier 'Khariton Greku'"]

[Text] The bulk carrier "Khariton Greku," a domestically-built ship and the first of a new series, has joined the Black Sea ship fleet. The bulk carrier is designated for transporting bulk cargo, including various ores, coal, grain, apatite with a specific load volume of 0.36 cubic meters/ton or more, as well as diluted iron ore concentrates having a moisture content up to 15% and a specific load volume of 0.36 to 0.45 cubic meters/ton.

#### Principal Characteristics

##### Length:

Maximum . . . . .	215.38 m
Between perpendiculars . . . . .	201.6 m
Maximum width . . . . .	31.8 m
Hull height, amidships . . . . .	16.95 m
Maximum draft . . . . .	12.3 m
Deadweight at maximum draft of 12.3m . . . . .	52,450 t
Water displacement at draft of 12.3 m . . . . .	66,000 t
Cargo-carrying capacity [tonnage] . . . . .	49,380 t
The range is 15,000 miles, but can be increased to 20,000 miles by decreasing the cargo tonnage. The operational area is unlimited. Ship speed is 14.2 knots, given the 12.3 m maximum draft and with the main engine operating at 90% power over a long duration of time.	

The ship was planned and constructed for the LZ A2 (bulk cargo) class, USSR Registry KM ©. The project planning phase took into consideration both domestic and international regulations.

"Khariton Greku" is a single propeller, single deck ship with a short forecastle, a transom stern, with the engine room aft and living accommodations in the stern superstructure. It has a bulb stem. The shape of the hull was developed on the basis of tests with models. It exhibits good sailing and sea-going qualities, both when fully loaded and in ballast.

In planning and constructing the ship a great deal of attention was given to integrating the mechanical equipment that had proved itself in operations and



in good maintainability. This requirement provides for convenient and quick dismantling and repair of mechanical and other equipment, as well as easy access to it.

The ship's hull is welded and constructed in accordance with a mixed assembly system: Its double bottom, top deck, and shipboard underdeck tanks are constructed in accordance with the longitudinal assembly system; the sides, the lower deck, platforms, the tank deck, deck cabins, bilge tanks and extremities of the hull, in accordance with the transverse system. The hull is made of low alloy steel: 09G2; and secondary construction is out of carbide steel: VSt3Sp4.

The continuous second bottom is placed between the forepeak and afterpeak bulkheads. In holds Nos. 2, 5 and 7, the second bottom is reinforced for transporting heavy bulk cargo. There is an underdeck corridor for passage from the superstructure to the raised forecastle. Ballast control and kingston channels are constructed in a casing form.

The hull is protected from corrosion and marine encrustations by synthetic protective covering and a system of cathode protection that is powered by an electric current of 380 V, with a frequency of 50 hertz.

The ship has cabins for the 46 crew members and trainees: senior command personnel (8 persons) are in state rooms; the mid-level command staff (8 persons) and the crew (22 persons) are in single cabins with sanitary facilities and showers; and the trainees (8 persons) are in double cabins with bunkbeds, sanitary facilities and showers; the pilot has a single cabin. The ship's anchor assembly consists of two Hall's anchors, each weighing nine tons. The anchor winches are equipped with a remote control system operated from the wheel house. They also have counters showing how much chain has been let out. These counters are also near the winch-control position in the wheel house. In addition, the wheel house has indicators that show how fast the anchor chains are being played out.

The mooring assembly consists of five automatic, electric winches with a thrust force of 125 kN (12.5 ton-force) and two automatic anchor-mooring, hydraulic-powered winches with a thrust force of 160 kN (16 ton-force).

The ship's rescue equipment consists of two motor rescue sloops, closed type, with plastic hulls and capacity of 55 persons; six rescue rafts for 10 persons each, and a raft for six persons. The rafts are kept in containers and fixed to hydraulic pressure switches that inflate the rafts. The ship also has a utility motor sloop with a plastic hull and a raft made of an aluminum alloy.

The rudder assembly consists of a streamlined, semi-balanced rudder having an area of around 35 sq meters, an electro-hydraulic rudder motor with a torque of 1.25 MN x m (125 tsm). The rudder motor has two pump assemblies, one of which is a reserve. In addition, a closed structure on deck has an emergency pumping apparatus.

Rudder motor control can be remote, electric (from the wheel house), or local (from the rudder section). The wheel house position is equipped with an automatic rudder apparatus.

For unloading provisions, lowering and raising the working sloop and raft and for servicing the engine room through a hatch, a cargo crane is fixed in a closed space on the first deck, on the starboard side. A type KE32-2, it has a lifting power of 3.2 tons, a maximum boom reach of 14 m and a minimum reach of 4 m. The boom can reach 6 m beyond the starboard side of the ship. The port side has a similar crane on the roof of the middle deck house.

For unloading the remains of bulk cargo from the holds, the ship has four rotatable booms with a lifting capacity of 200 kg, electrically powered and having three cart pallets. For loading the boatswain's supplies in the area of the boatswain's store, there is an electrically-powered loading boom with a 200 kg lifting capacity. For lifting fuel and oil hoses during fueling operations, the ship has rotatable, electrically powered booms with a 500 kg lifting capacity.

The ship has a galley elevator with a 100 kg lift capacity and a 250 kg passenger load limit. The corridor system has a rail line with a small wagon having a load capacity of 200 kg.

Two signal masts are installed on the ship, designated for carrying signal identification lights and radio navigational equipment. There are also two girder-type masts for main and reserve radio communications.

For closing off holds, the ship has waterproof hatch covers with hydraulic openers. The hatch covers are designed to withstand an even pressure of 1.75 ts per square meter. The hatch cover for the No. 4 hold is also designed to withstand a full load of ballast in the hold. The construction of the cover for the No. 1 hold consists of a single panel in two sections which opens into the nose of the ship by means of hydraulic cylinders. The construction for the No. 2 and 8 holds consists of two inter-connected, hinged leaves, each having two sections, and opening out to the ship's sides. To secure the hatch covers, a high-speed, manual closing apparatus is used. Hydraulic power drives for the hatch covers are operated from switches located near the hatch coamings. In case of emergency, hatch covers can be opened with the aid of on-shore cranes.

The main engine on the "Khariton Greku" is a diesel, constructed by the Bryansk Machine Building Plant through a licensing agreement with the Burmeister and Wein Co. It is a 8DKRN 74/160-3 (8K74EF) type with a maximum extended power of 11.0 MBt (15,000 hp) at 124 revolutions/minute. The engine is equipped with an automated remote control system from the wheel house, as well as a remote control system from the TsPU [Central Control Station] and automated systems that provide for servicing the engine room by one person on watch. The main engine operates on fuel with a Redwood 1 viscosity index of up to 1500 at 100 degrees F.

For the ship's energy supply there is a power station with three diesel generators, each capable of producing up to 400 kw; a utility turbo-generator, TGU-50, with a capacity of 500 kw, and an emergency diesel generator, ADGR-200/1500, with a 200 kw capacity. Auxiliary generator drives consist of 8ChN 25/34-2 engines, with a power of 441.3 kw (600 hp) at 500 rpm.



The drive for the emergency diesel generator is a 12Ch 15/18 diesel with a 220.7 kw capacity (300 hp) at 1500 rpm.

The engine is cooled by a fresh water, sealed circulating system, a radiator and a fan attached to the engine; the filling system is automatic.

The auxiliary diesel generator and the emergency diesel generator operate on diesel fuel. The diesel generators are automated and are equipped with a remote control and protection system. The turbo-generator consists of the turbine, condensor, reduction gear, generator, and servicing apparatus and equipment, constructed as one unit on a single foundation framework; it is equipped with an automatic regulating system.

For auxiliary boilers, the ship uses a water-tube boiler of the KAV 2.5/7-21 type, operating on heavy fuel. Its power is 2.5 tons per hour at a steam pressure of 0.7 MPa (7 kg/square cm). The ship also has a utility boiler with a capacity of 5.2 tons/hour at a steam pressure of 0.7 MPa (7 kg/square cm). The boilers are automated to the extent that they do not need shipboard servicing.

Fresh water is supplied by a vacuum-type distillery with a capacity of 20 tons/day. There is an apparatus for conserving drinking water by subjecting it to a dose of 0.05 mg/liter of silver. Water for washing may also be conserved by silver and by passing it to the users through bactericidal equipment. Distilled water for washing and, in emergency, for drinking is purified with bactericidal rays and passed through a mineralizer. The operating mechanism servicing the water supply system is automated.

For supplying compressed air, the ship has two main compressors with a capacity of 430 cubic m/hr at a pressure of 3.0 MPa (30 kg/square cm), an accelerator compressor with a capacity of 140 cubic m/hr at a pressure of 3.0 MPa, and a compressor for household needs with a capacity of 2.7 cubic m/minute at a pressure of 0.8 MPa (8 kg/square cm).

For cleansing bilge water of petroleum products, there is a separator (SK10M) that purifies the bilge water to a petroleum content of 15 mg/liter. Sewer water from bathrooms passes through a cleansing apparatus and a purifying system. Household-use water from lavatories, baths, showers and drains from bathrooms are diverted to side tanks through chlorinating chambers designed for purifying sewer water. Sewer water is pumped ashore from the collection tank.

The ship has a Polish-made incinerator for burning solid waste.

All living quarters and some service areas are equipped with a single-channel, medium-speed system for year-round air conditioning, consisting of three compressor-condensating units and two conditioners with individual temperature control switches in every room. Climate control in the Central Control Station is effected by a separate conditioner. The ship has a refrigerator unit for servicing eight food storage areas. The heating system is equipped with two automated separators that use heavy fuel and one that uses light fuel.

The firefighting system uses two water pumps with a capacity of 100 cubic meters/ hour each, and can be controlled from the Central Control Room, the control station or the deck office. There is also an emergency fire pump with a capacity of 63 cubic m/hr. It is a circular system. The engine room and the fuel receiving stations have a system of portable foam units. The PO-1 foam-making machine may be inserted into the water-based firefighting system through proportioners. Foam is made by the foam generators, connected to the fire alarm system. The system for extinguishing large chemical fires in the engine room consists of a station and pipeline system with sprayers attached. They use [khladon] 114V-2. The carbon dioxide system of fire extinguishing is designed for the scavenging air receiver of the main engine, the paint room, the emergency diesel generator rooms, the analyzer and the emergency fire pump.

The dehumidifying system is serviced by two dehumidifying, self-priming centrifugal pumps with a capacity of 250 cubic meters/hr and a piston pump with a capacity of 25 cubic meters/hr for dehumidifying the engine room. The ballast system is serviced by three centrifugal pumps with a capacity of 400 cubic meters/hr. Pumps for outside water, which are part of the cooling system for the main engine, may also be used. Ballast tanks, located forward of the engine room, are serviced through an inter-bottom ballast distribution conduit. There is a separate system for cleaning the ballast tanks located in the inter-bottom corridor system. It is serviced by a self-priming centrifugal pump with a capacity of 250 cubic meters/hour. Remote control of valves for the dehumidifying and ballast systems is effected from a control panel in the Central Control Station.

The ship's propeller is a bronze, solid-cast screw, with four blades with a diameter of 5.8m. The screw is connected to the shaft without a key channel, by a hydraulic ram fit.

The deadwood assembly is filled in with grease, has metal bearings covered with white metal [babbit]. The deadwood sealing is prepared in accordance with a licensing agreement with the Simplex Company.

The scope of automation permits the operation of the power system by one person in the Cental Control Station when the ship is under way and no person is needed when the ship is berthed, including when cargo operations are in progress.

The ship has the following automated systems: DAU [Automatic Remote Control] of the main engine; control of the electric power supply; centralized control; control of apparatuses servicing the main engine; control and signaling of overall ship systems; control and distribution of power for automated and control systems.

The ship has powerful radio equipment that assures two-way communications. This equipment is located in a structure separate from that of the radio operator, where there is a panel for remote control of radio communications. There is teletype and phototelegraph equipment. The bulker has emergency radio apparatus, and automatic receivers and transmitters for sending alarm and distress signals.

In addition, the ship is equipped with a public address system, and a radio broadcasting and television complex; it also has modern, Soviet-made electro-navigational equipment.

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## PORTS AND TRANSSHIPMENT CENTERS

### RAILROAD, OSETROVO PORT AT ODDS OVER RAILCAR DEMURRAGE

Moscow VODNYI TRANSPORT in Russian 29 May 84 p 1

[Article by A. Malyshev, special correspondent, Ust-Kut--Moscow: "A Glutted Port"]

[Text] Approximately 1500 railroad cars loaded with freight scheduled to be shipped by river have accumulated at the Lena Station-Yard of the East Siberian Railroad.

Every day begins the same way. The chief of the Lena Railroad Station, V. Yakhimovich, telephones the chief of the Osetrovo Port, G. Khoroshilov, and utters the following rebuke:

"When are you finally going to cope with the plan for unloading the rail cars?"

At first there is a pause at the other end of the wire. Then justifications begin to be uttered. Conditions, he says, have become so complicated. You yourself know what the situation is like.

And the situation is as follows. During the present year the local river workers must accept from the railroad and ship out by water 1,600,000 tons of general items. Some 650,000 of them must be in port prior to the beginning of the navigation season, despite the fact that Osetrovo was designed to receive slightly more than 400,000 tons of items.

The river workers coped with the tasks assigned to them for the spring. By mid-May they had piled up even 20,000 tons more. But they caused a glut thereby. Every cargo district of the port now resembles a Medieval European city with its narrow little streets. Only instead of houses there loom up high piles of boxes, containers, and reinforced-concrete items--the trucks cannot even drive in between them. In looking at all this, one is amazed not so much that the Osetrovo workers are unable to load up the planned 245 cars a day but that they are somehow clever enough to cope with loading an average of 175 units of rolling stock a day.

The proverb which states: "The more the merrier!" is obviously inappropriate here. The glutting of the port is reflected in the work of the railroad people, the river people, and likewise those to whom these goods are being shipped. The state bears a great deal of losses. On 23 May 1,370 cars were drawn up in line at the Lena Station-Yard and its sidings. For just one of them to stand idle

for a day costs the national economy 50 rubles. And so about 70,000 rubles are flying to the winds every day solely on this account! But what if we take into consideration the fact that many cars have been standing here since March, or even February?!

A warehouse on rails is far from the best place for storing many items. This is particularly true with regard to flour and mixed feeds. In the cars it is impossible to safeguard them from heat, increased air humidity, showers, and, hence, from being spoiled. Those products which are stored outdoors at the port, protected merely by a tarpaulin, may also become spoiled.

The following circumstance is also of considerable importance. The port has limitations not only with regard to warehouse space but also human reserves and technical possibilities. Therefore, even with all the human desire to do so, the business will not move any faster. But goods will continue to arrive here until autumn, furthermore, in quite significant amounts. That means, everything will be repeated, just as it was last year. Then just as many items had piled up by this time, and it was impossible to move or even turn around. And no matter how much effort was applied by the river people, no matter how much they tried to eliminate the glut--nothing seemed to work. By autumn the railroad people had rolled up the followed big score: more than 50,000 cars were held over in Osetrovo by October. And the excessive idle time of the ships here amounted to approximately 2 million tonnage-hours.

The practice of "making a city" within the port city out of boxes, bags, and containers complicates the shipment of products and is reflected in the work of those people who are waiting for the ships from Osetrovo. Last year, for example, the builders of the Vilyuysk GES were in urgent need of metal. It had been brought to Osetrovo as far back as the winter. In the spring it was piled up with new batches of goods. And they piled it up in such a way that it was not until August that they could get to it. And there are not only one or two --but many dozens--of such examples.

Success in transshipping general cargoes depends, to a large extent, on what it is, in what volume, and at what time it is delivered here by railroad. That is, it depends on a very carefully thought-out plan for shipping everything which is needed by the inhabitants and the industry of the very extensive region serviced by the Lena river workers. Great importance, therefore, is accorded to working out this plan. At the beginning of the year the port workers put forth their own proposals. The final decisions is made in USSR Gossnab after agreement with the RSFSR Ministry of the River Fleet and the USSR Ministry of Railways.

Now Osetrovans have decided to "narrow down" the short thoroughfares here and there, to store in several tiers the items which still cannot be shipped out soon, and put into operation still other reserves. After a careful analysis they sent their own proposal to Moscow: the plan for accumulating goods prior to the opening of the navigation season should amount to 550,000 tons. Unfortunately, the opinion of those who are directly engaged in the work of unloading the cars and loading the ships was not listened to. And in the assignment of USSR Gossnab there appeared the following instruction: "RSFSR Ministry of the River Fleet, USSR Ministry of Railways, ministries and departments--cargo-



dispatchers, and the Union main administrations for supply and sales must ensure the accumulation by 1 May 1984 of 650,000 tons of dry cargoes in the Osetrovo river port." In the corresponding main administration of the RSFSR Ministry of the River Fleet it was decided not to express opposition to such a taut plan.

After being approved by the deputy chairman of USSR Gossnab [State Committee for Material and Technical Supply], A. Lebed', this document was signed by the following responsible officials of this department: the chief of the hauls administration, V. Arutyunov, the chief of the production and operations administration, L. Zaytsev, and the deputy chief of the administration for the intersectorial coordination and planning of deliveries of products in containers and in packaged form, V. Mikhaylov. What were they guided by in the committee when they issued such a directive? It turns out that the following opinion is prevalent there: by reducing the accumulation of goods in the spring, the river people would have to work harder during the navigation season. To accomplish this is beyond the powers of the port workers. Because, you know, over the course of many years now they have not even been able to cope with the existing tasks. Thus, in not a single one of the five months of the last navigation season did the river workers manage to cope with the established norms for unloading cars. And during its entire period the Osetrovans were unable to unload 302 units of rolling stock; in other words--they left unprocessed about 15,000 tons of goods.

That's quite a number! It turns out that the present-day losses, albeit quite substantial ones, are a necessary tribute to local conditions. If the suppliers had not glutted the port above the rooftops in the spring, the river workers would not have hauled all the cargoes to the country's northeastern regions during the navigation season.

But if we visit the port, we become convinced of the following: it is not very easy to work in a glutted transport enterprise. It requires, for example, that to take out some particular item, an entire pile must be sorted through. In order to approach it, one must thrust a path through the boxes and bags for the fork-lift trucks. But this wastes effort, energy, and time.

Osetrovo's information-computer center has issued the following data: "During the 1983 navigation season 69,500 man-hours were spent on work which was actually non-productive." Otherwise, if there were no rearrangements of the items in the warehouses, the stacks of tumble-down, multi-tier piles, re-stacking of dampened mixed feeds, and other such work, the river people would have been able "to unload an additional 200,000 tons of freight from the cars during the summer." By utilizing this reserve of increasing labor productivity, the port workers would not only cope with the norms for unloading rolling stock but even exceed them. Thereby they would be able to ship out more cargo to remote corners of the country and significantly reduce the losses connected with its transport.

The calculations of the Siberians make a bad job of the positions assumed by the specialists of USSR Gossnab. The present-day glutting of the port beyond all measure has put a stop to the work of the transport employees. Moreover, not only during the spring but during the summer as well. And this will cost the state plenty of money.

You come to such a conclusion after becoming familiar with the situation which has now arisen in Osetrovo. When and how will order be instituted there? There is still no answer to this legitimate question. But, of course, there must be an answer! It is precisely this which is required by the interests of this region--one which is extremely important for the national economy of our Motherland.

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## PORTS AND TRANSSHIPMENT CENTERS

### VOLGA PORT OF PERM SLOW IN PROCESSING CARGO

Moscow VODNYY TRANSPORT in Russian 22 May 84 p 2

[Article by V. Rutkovskiy, special correspondent: "Crowding at the Perm Wharves"]

[Text] It has finally arrived at the wharves of Perm--the first diesel ship of the fourth navigation season of the current five-year plan. How is it being met? Are they ready for it? With hope and with a certain anxiety the ship's crew looks out at the well-known panorama of this central port of the Western Urals.

Since that time two weeks have passed. Now it is the second half of May. A gusty, un-spring-like, cold wind is chasing stormy waves alongside the wharves. The anchor chains of the ships drawn up in the Perm roadstead are tautly stretched. They are waiting and impatiently waiting to take into their holds building materials and coal, industrial goods, fertilizers, sugar, canned goods, and grain products--in all, 264,000 tons of cargo. That is how much the river workers must deliver to the upper reaches of the basin by high water. Among the diesel ships and non-self-propelled vessels one still encounters those which have already been standing here for several days.

It is warm and quiet in the dispatcher's office of the port of Perm. Once in a while the voice of some particularly impatient captain comes over the wireless set; he is interested whether or not the comprehensive fleet service is taking time off, and then there is quiet again. Nobody appeals to the duty and the conscience of the cargo dispatchers. Evidently it is a matter of little concern here that it required 130 hours to load 511 tons of cargo into the hold of Barge No 3408, or that Barge No 3424 was being processed from 1600 hours on 1 May to late in the evening of 11 May. Operators of the loading work could also report on the Archimedean loading of of Barges No 3445 and 3413.

Of little consolation are the sanctions which the river workers bring to bear in order to discipline, to a certain extent, the cargo dispatchers. For 330 hours of unproductive idle time, only 500 rubles in fines can be imposed on the port. What can be said? A complicated situation has been created on the wharves.

It is caused, for the most part, by the fact that the clientele have no desire at all to organize the loading of the ships on a round-the-clock basis. It is much simpler to pay the fines than to set up the work of the brigades and

the motor-vehicle transport in three shifts. The managers of the Perm winery and liquor-vodka plant feel themselves to be particularly free. They are even permitted to pay the fines for the fleet's unproductive idle time at the rates set for short-term leases--that, they say, is cheaper!

While the river workers are wearing out their "bludgeon" of fines on the cargo dispatchers, the same fate is being prepared for themselves by the railroad workers, who are scolding because of the slow actions in unloading their rolling stock.

During the course of the first two weeks of work only once did the port workers meet their norms, while on the remaining days they had to pay fines: the excessive idle time amount to 1,990 hours. In other words, an entire railroad train, capable of taking on 4,500 tons of freight stood idle for a whole day.

"At a norm for processing a railroad car in 5--6 hours," we were told by Ye. Okulova, the commodity-warehouse cashier of Perm-2 Station, "during four days in May, for example, the port workers spent more than 50 hours in doing this. They were particularly slow in unloading the boxcars. Two of them were loaded with sugar; they started to process them as far back as 1 May, and they were in port for almost 9 whole days."

"This is the third year in a row, like a punishment, that we have had to take our first run on the Kama," irritably grumbled A. Poddubnyy, captain of the diesel ship Volgo-Don-201 of the White Sea-Onega Steamship Company. "We are sailing with a load of sand-gravel mix toward a dredging machine, and we are already the fourth Volgo-Don in line."

In line.... As if it were during a parade, dozens of ships were drawn up in the Perm roadstead under the pennants of many steamship companies of the central basins. But it was only on 11 and 12 May that the Volgo-Don-159, the Volgo-Don-181, the Volgo-Don-40, and others moved up to the port's wharves. They were delivering an over-all amount of about 25,000 tons of Akhtyubinsk salt. And here is another "stack-forming" arrival. Two days prior to this the diesel-ships Volgo-Don-197, Sarapul, Volgo-Don-241, and Yelabug dropped anchor in the Perm roadstead. They had reinforced-concrete items on board. Thus, at the whim of the Volga and Perm transport workers, the ships have been turned into floating warehouses.

The crowding at the Perm wharves will not decline. Rail cars are standing idle, the fleet is standing idle, while the partners are imposing fines on each other. And again about 50,000 tons of salt arriving in ships have already piled up in the port, along with almost 50,000 tons of coal which have come in by railroad. Just how long can things continue on in this way?

IN THIS CONNECTION, I WOULD LIKE TO POSE A QUESTION TO THE WORKERS IN CLOSELY ALLIED FIELDS: WILL THEY BE ABLE TO ACHIEVE THE FULFILLMENT OF THEIR OWN PLAN MEASURES WITH REGARD TO ENSURING THE ON-SCHEDULE DELIVERY OF GOODS IMPORTANT FOR THE NATIONAL ECONOMY?

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## PORTS AND TRANSHIPMENT CENTERS

### PORT-RAIL COORDINATION PROBLEMS IN OB-IRTYSH BASIN

Moscow VODNYY TRANSPORT in Russian 19 Apr 84 p 2

[Article: "In the Hope for a Summer Storm"]

[Text] That's the title of an article which was published in our newspaper on the 21 February 1984. It was examined by the USSR State Committee for Material and Technical Procurement. The report discussed the unsatisfactory process of cargo build-up in the ports of Western Siberia. As L. Zaytsev, the director of the Production-Operational Administration of Gossnab USSR informed the editorial staff, the criticism was acknowledged as being correct.

According to the quotas confirmed by Gossnab USSR, in the internavigational period 1983-1984, 190,000 tons of cargo should be accumulated in the Omsk River Port, and 330,000 tons at the departmental portside depots. According to operational data only 51,000 tons, or 26.8 percent of the quota were accumulated at the Omsk port, and 78,900 tons, or 23.9 percent of the quota were accumulated at the departmental depots. This is partially explained by the fact that the series of ministries and departments USSR Minpromstroy, USSR Minsel'stroy, BSSR Minpromstroy, etc, did not present their claims for total cargo volumes to RSFSR Minrechflot and the MPS (Ministry of Railways) for the transport of freight via the port of Omsk during the first quarter of 1984. They claimed that they were delivering a significant portion of their cargoes during this period to destination points by rail in the Tobolsk--Surgut--Nizhnevartovsk sector and in the Ust-Yugun-Urengoy sector. The operational quotas established by USSR Gosplan, USSR Mintransstroy and USSR MPS for rail freight transport to these rayons in January and February of 1984 have been fulfilled.

In order to ensure that quotas for stockpiling national-economic cargo during the internavigational period are met at the port of Omsk and other ports of the Ob-Irtysh basin, and also at departmental depots near ports, this problem was examined at the 27 February 1984 meeting of the USSR Gossnab Far North operational group. It was decided to charge the agencies of USSR Gossnab, the ministries and departments-suppliers to take additional measures to increase shipment of products to the above-mentioned ports and departmental depots. It was also decided to forward to RSFSR Minrechflot and USSR MPS additional requests for the shipment of cargo this spring, delivery to be by direct rail and river routes to the river ports of the Ob-Irtysh basin.

Permanent monitoring over the movement of freight stockpiles in river ports and at departmental depots in the Ob-Irtysh basin rayons during the internavigational period is being carried out by USSR Gossnab agencies and transport ministries.



## PORTS AND TRANSSHIPMENT CENTERS

### BRIEFS

TAIMYR ICE DOCKS--Norilsk (TASS) 8 April--Underwater sections of ships in this Khantang seaport docks "constructed" by frost. With the onset of the coldest days the cold-weather laborers set to work. They remove the first 20-centimeter layer of ice from around a ship. Under the action of extreme cold the water freezes at still deeper levels. Then the next layer of ice is removed, then the next, and so on until, in this self-made bowl, the opening in the ice reveals the entire underwater part of the hull. The ship itself is now held only by ice supports specially left for that purpose. To speed up freezing, jets of cold air are also driven onto the water by powerful blowers. In April and May, when the temperature is not as low after the polar night, tens of the vessels of the polar fleet, hydrofacilities and canneries are repaired in such docks. Before the spring floods, the bottom of the lane is drilled through and the ship is afloat. Of course the installation of these docks is fairly tedious: many cubic meters of ice must be sawn off and cleared away from beneath the hull of each ship. But for the Far North, where long and severe winter conditions prevent construction and use of stationary floating docks, this procedure is necessary and advantageous. [Text] [Moscow PRAVDA in Russian 9 Apr 84 p 2] 12659

YUZHNO-SAKHALINSK FERRY HARBOR--Yuzhno-Sakhalinsk (TASS) 16 April--The structures for the second phase of the Kholmsk-Vanino sea-ferry crossing bridge, being built over the landing at Kholmsk seaport hangs like a steel plate over the water. Rail cars arriving to the island from the mainland in ship holds will travel on its rails to the Sakhalin coast. Currently, seven powerful diesel-electric powered ice-class ships ply the Tatar Bay, mooring in Kholmsk. When the second phase of crossings begins construction in 1985, two ferries at a time will be able to unload here. Construction of the sea section of the second phase ferry crossings has entered the final stage. Ashore they are preparing railbed areas and industrial areas are being finished. When the second phase begins operation, the capacity of the ferry complex will greatly increase. Coastal services will be expanded, and the number of ferries will grow to 11. [Text] [Moscow PRAVDA in Russian 17 Apr 84 p 3] 12659

LARGE-SCALE CONTAINER RECONDITIONING--Ilichevsk (TASS)--A large facility has been developed at the seaside trade port of Ilichevsk. The third of its shops began operation yesterday. Twenty containers per day will be reconditioned here. The output of this new complex will make possible the renovation of all Black Sea steamship lines. [Text] [Moscow VODNYI TRANSPORT in Russian 19 Apr 84 p 1] 12659

FLOATING CONSTRUCTION BRIGADE COLLECTIVE--Rostov-on-Don--The floating-construction brigade collective of the Volgodongidrostroy Trust has begun construction of the third phase of western berths of the Volgodon Port. This section is earmarked for offloading mineral and construction materials to construction workers of the Rostov-on-Don AES. The new berths will permit simultaneous freight handling of sand from local pits with the help of a hydro-reloader and other freight from two ships by crane. [Text] [Moscow VODNYI TRANSPORT in Russian 19 Apr 84 p 1] 12659

EQUIPMENT SAILING TO CHUKOTKA--Vladivostok--The sailors of the Far East have begun steaming into the ports of Eastern Chukotka. The diesel-electric powered ship "Kapitan Markov," accompanied by the icebreaker "Moskva" will deliver construction materials and earthmoving equipment to residents of the north. The equipment is earmarked for the expansion of rebuilding efforts at the Egvekinot and Provideniye ports. [Text] [Moscow VODNYI TRANSPORT in Russian 19 Apr 84 p 1] 12659

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